

REMARKS

Applicants respectfully request that the Examiner reconsider the present application. In the present reply, new claim 7 has been added. Thus, claims 1-7 are pending in the present application.

Claim 7 does not add new matter to the present application. Claim 7 finds support in the present specification at, for example, page 14, line 23. Entry of the present amendment is respectfully requested.

Claim rejections

Claims 1-6 stand rejected under 35 U.S.C §103(a) as unpatentable over Sakai et al. (U.S. Patent No. 5,183,843). The Examiner first asserts that it would have been obvious to have employed a metal salt of behenic acid based on the disclosure of Sakai. The Examiner further asserts that it would have been obvious to have employed a metal salt of an acid with 25 carbon atoms, since Sakai teaches that metal salts with 26 carbon atoms can be used. For the following reasons, this rejection is respectfully traversed.

The Sakai reference includes a list of a number of fatty acids, behenic acid among them. However Sakai does not disclose any Examples of compositions that utilize metal salts of an acid with 20-25 carbon atoms. Sakai also specifically teaches and emphasizes that aliphatic carboxylic acids of 26-32 carbon atoms are to be used with their invention. See, e.g., Sakai col. 2, lines 32-36. All of the working examples in Sakai utilize metal acid salts in this carbon atom range.

However, the Examiner asserts in the Office Action dated, March 7, 2005, at page 3:

When the claimed range and prior art range are very similar (i.e., 25 versus 26), the range of the prior art establishes prima facie obviousness because one of ordinary skill in the art would have expected the similar ranges to have the same properties. In re Peterson, 65 USPQ 1379. Applicants'

reliance on the experimental data of record comparing a metal salt of an acid having 28 carbons with one derived from an acid having 22 carbons is not probative of unexpected results for the claims as presently recited.

Accordingly, included with the present Amendment, Applicants submit a Declaration from Mr. Seki. Mr. Seki's Declaration establishes that a composition comprising a metal salt of an aliphatic carboxylic acid of 20-25 carbon atoms, and more preferably 20-24 carbon atoms, show unexpected results over the closest prior art.

In the Declaration, data is presented from Reference Experiment I, which uses a metal acid salt of 20 carbon atoms, Reference Experiment II, which uses a metal acid salt of 24 carbon atoms, and from Reference Experiment III, which uses a metal acid salt of 26 carbon atoms.

The results of these three reference Experiments are shown in Table AA of the Declaration, and are also shown in Table BB (Exhibit I) included with this Amendment. Table BB further includes Examples 1-4, and Comparative Examples 1-4, from the Applicants' Specification for comparison.

The data presented in the Declaration demonstrates that Reference Experiment II, which uses an acid metal salt of 24 carbon atoms, has superior flowability (flow length) when compared to Experiment III, which uses an acid metal salt of 26 carbon atoms.

In addition, Reference Experiment I, which uses an acid metal salt of 20 carbon atoms, shows good mold releasing properties (shot stability (AA)). Whereas, Comparative Example 1, which uses an acid metal salt of 18 carbon atoms, shows poor mold releasing properties (shot stability (BB)).

Therefore, by using an acid metal salt within the claimed range of 20-25 carbon atoms, and more preferably 20-24 carbon atoms, the polyamide resin compositions of the present invention can simultaneously achieve higher flowability, and good mold releasing properties.

In addition, it is respectfully asserted that the claimed range of 20-24 carbon atoms of new claim 7 is clearly patentable over Sakai. The patentability of claim 7 is directly and unambiguously supported by the data in the Declaration of Mr. Seki. Unexpected benefits, specifically, an optimum combination of high flowability and good mold releasing properties is directly demonstrated. This is neither taught nor suggested by the prior art. One skilled in the art would not be apprised of polyamide resin compositions that achieve this balance of physical properties based on the teachings of Sakai.

In light of the above arguments and Declaration, it is respectfully submitted that all of the pending claims are now allowable. Withdrawal of the rejection is respectfully requested.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Raymond C. Stewart (Reg. No. 21,066) at the telephone number below.

Pursuant to 37 C.F.R. 1.17 and 1.136(a), the Applicants respectfully petition for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$120.00 is attached.

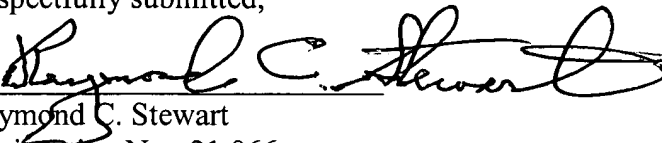
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Docket No.: 1155-0271P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: July 7, 2005

Respectfully submitted,

By 
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Attachment: Exhibit I

I.M.K.

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Table BB

Evaluation item	Type of PA	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ref. Exp. I	Ref. Exp. II	Ref. Exp. III	Comp. Ex. 1	Comp. Ex. 2	Comp. Ex. 3	Comp. Ex. 4	Comp. Ex. 5
		PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66	PA6T /66
Polyamide resin composition	Amount of PA (part(s) by weight)	100	100	100	100	100	100	100	100	100	100	100	100
	Type and amount (part(s) by weight) of metallic soap	Li-Beh(22 carbon atoms)	0.5	1	0.5								
		Mg-Beh(22 carbon atoms)	-	-	1	0.5							
		Li-St (18 carbon atoms)	-	-	-				1	-	-	-	-
		Na-Mon(28 carbon atoms)	-	-	-				-	1	-	-	-
		Ca-Mon(28 carbon atoms)	-	-	-				-	-	1	-	-
		Li-Ara (20 carbon atoms)				1							
		Li-Lig (24 carbon atoms)					1						
		Li-Cer (26 carbon atoms)						1					
	Polyethylene oxide (part(s) by weight)	-	-	-	-				-	-	-	1	-
Evaluation item	Aliphatic ester (part(s) by weight)	-	-	-	-				-	-	-	-	1
	Flow length (mm)	81	84	88	85	90	80	76	94	75	70	63	56
	Mold release power (kg/cm ²)	37	36	35	30	41	31	27	45	26	25	22	24
		37	39	37	32	45	30	27	57	27	25	21	24
	Shot stability	AA	AA	AA	AA	AA	AA	AA	BB	AA	AA	AA	AA

Li-Beh: lithium behenate, Mg-Beh: magnesium behenate, Li-St: lithium stearate, Na-Mon: sodium montanate, Ca-Mon: calcium montanate, Li-Ara: Lithium arachinate, Li-Lig: Lithium lignocerate, Li-Cer: Lithium cerotinate, polyethylene oxide: ET132 (available from Clariant Japan K.K.), aliphatic ester: PED191 (available from Clariant Japan K.K.)